

Oligonucleotide Inhibitors of bcl-xL

Abstract of the Invention

5 This invention provides an antisense oligonucleotide or
analog thereof comprising 10 or more contiguous bases
or base analogs from the sequence of bases of sequence
A, B, C, D, E, F, G, H, I, J, K, L, or M of Figure 1.
This invention also provides the above-described
10 antisense oligonucleotides, wherein the nucleotide
sequence comprises nucleotide sequence A, A', B, C, C',
D, E, E', F, G, G', H, H', I, I', J, K, K', L, L', M,
or M' of Figures 2A and 2B. This invention also
provides the above-described antisense
15 oligonucleotides, wherein the oligonucleotide is
encapsulated in a liposome or nanoparticle. This
invention also provides the above-described antisense
oligonucleotides, wherein the phosphate backbone
comprises phosphorothioate bonds. In addition, this
20 invention provides a method of treating cancer,
comprising introducing into a tumor cell an effective
amount of the the above-described antisense
oligonucleotide, thereby reducing the levels of bcl-xL
protein produced and treating cancer. This invention
also provides the above-described methods, wherein the
25 introducing comprises using porphyrin or lipofectin as
a delivery agent. This invention also provides the
above-described pharmaceutical compositions, wherein
the oligonucleotide is encapsulated in a liposome or
nanoparticle. This invention further provides the
30 above-described pharmaceutical compositions, wherein
the pharmaceutical composition comprises tetra meso-(4-
methylpyridyl)porphine or tetra meso-
(anilinium)porphine or a combination thereof.